Meeting minutes 07- May-2001

Presents: M. Blaskiewicz, N. Catalan-Lasheras, D. Davino, A. Fedotov, R. Gluckstern, H. Hahn, Y. Y. Lee, N. Malitsky, Y. Papaphilippou, G. Parzen, D. Raparia, A. Shishlo, N. Tsoupas, B. Weng, J. Wei

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1. J. Wei. Presented the full agenda for the next DOE review on May. It can be found here

2. D. Davino Further measurements on the SNS simplified kicker model [BNL/SNS note 088] have shown that different configurations of the new ferrite winding proposed by Y.Y. Lee can give more effective reduction of the transverse impedance. The reduction is effective even at low frequencies (<10 MHz) and for a 50-Ohm termination on the PFN port. In order to not influence the kicker field, it is necessary to design an electrical switch to commute the winding to a not-perturbing configuration. Presentation

3. D. Raparia showed results from Los Alamos on the energy and phase tolerances for the HEBT line and ring. Due to the change on energy, the control on the RF has been relaxed. From 0.5 % in frequency and 0.5° in phase, the tolerance in the RF has been relaxed to 0.5% and 1°. The result of 1000 turns shows an energy centroid jitter from ±0.75 MeV to ±1 MeV. The phase jitter deteriorates from ±2° to ±2.5°. It was suggested that there should be 1000 different runs to have statistically acceptable results.

4. A. Fedotov. Continued investigating if it is possible to locate the tune close to the half-integer structure resonance (6.2-6.23). Both K-V and non K-V distributions support the existing theory stating that the bare tune plus/minus incoherent tune shift can cross the half integer resonance. Detailed study of the decoherent effects is under study. For the SNS bunched beam, realistic painting and decoherent effects included it is possible to go beyond $2 \cdot 10^{14}$ particles before observing significant emittance growth. The cases with $2 \cdot 10^{14}$, $3 \cdot 10^{14}$ and $4 \cdot 10^{14}$ were simulated without magnet errors. Also various magnet errors were included for the case $2 \cdot 10^{14}$ and there was not seen significant halo formation. JW pointed out that dynamic aperture studies are necessary to explain former results where drastic reduction of the DA was seen.